



22 July 2016

AQUACULTURE DECISION REPORT — NGAI TAHU SEAFOOD RESOURCES LIMITED, COASTAL PERMIT CRC160457, SQUALLY BAY, BANKS PENINSULA

PURPOSE

1 This report sets out my aquaculture decision (as the relevant decision maker¹) for an aquaculture decision request made under section 114(4)(c)(ii) of the *Resource Management Act 1991* (**RMA91**). The aquaculture decision request is described below. My aquaculture decision is made under section 186E of the *Fisheries Act 1996* (**Fisheries Act**).

SUMMARY

2 I am satisfied the aquaculture activities proposed within the area of coastal permit CRC160457 will not have an undue adverse effect on:

- recreational fishing — for the reasons set out in this report and summarised in paragraph 45;
- customary fishing — for the reasons set out in this report and summarised in paragraph 64;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 96.

AQUACULTURE DECISION REQUEST DETAILS

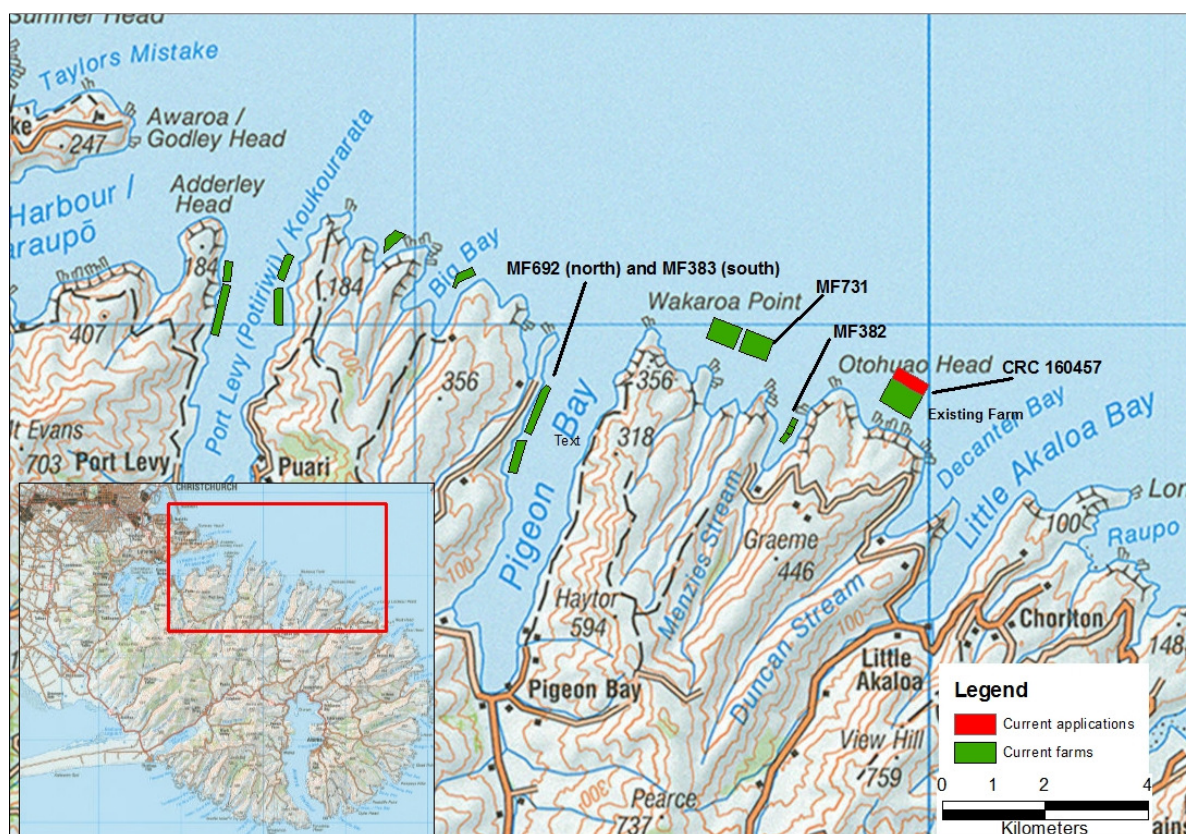
Regional Council:	Environment Canterbury (ECan)
Date of Request:	21 June 2016
Coastal Permit Applicant:	Ngai Tahu Seafood Resources Limited
Location of marine farm sites:	Squally Bay, Banks Peninsula
Size of farm:	17.46 hectares (ha) of new space by extending an existing marine farm established under Coastal Permit CRC010002 by way of an Environment Court consent order in September 2002.
Species to be farmed:	Green-lipped mussel (<i>Perna canaliculus</i>), blue mussel (<i>Mytilus galloprovincialis</i>), bladder kelp (<i>Macrocystis pyrifera</i>), <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp, <i>Pterocladia lucida</i> and <i>Undaria</i> .
Farm structures:	Standard mussel farming and spat catching longlines and droppers

Location

3 Coastal permit CRC160457 applies to an extension of marine farm permit 740 (**MF740**), an existing marine farm off Squally Bay. Squally Bay is on the north-eastern coastline of Banks Peninsula, between Menzies Bay and Decanter Bay (Map 1). Aside from MF740, there are other

¹ Acting under authority delegated to me by the Director-General of the Ministry for Primary Industries (MPI) in accordance with section 41 of the *State Sector Act 1988*.

existing marine farms nearby: marine farm permit 382 (**MF382**) in Menzies Bay to the south-west of coastal permit area CRC160457, marine farm permits 731 (**MF731**) to the east of Wakaroa Point, and marine farm permits 383 and 692 (MF383 and MF692, respectively) in Pigeon Bay.



Map 12: Location of coastal permit area CRC160457 in the wider Banks Peninsula area.

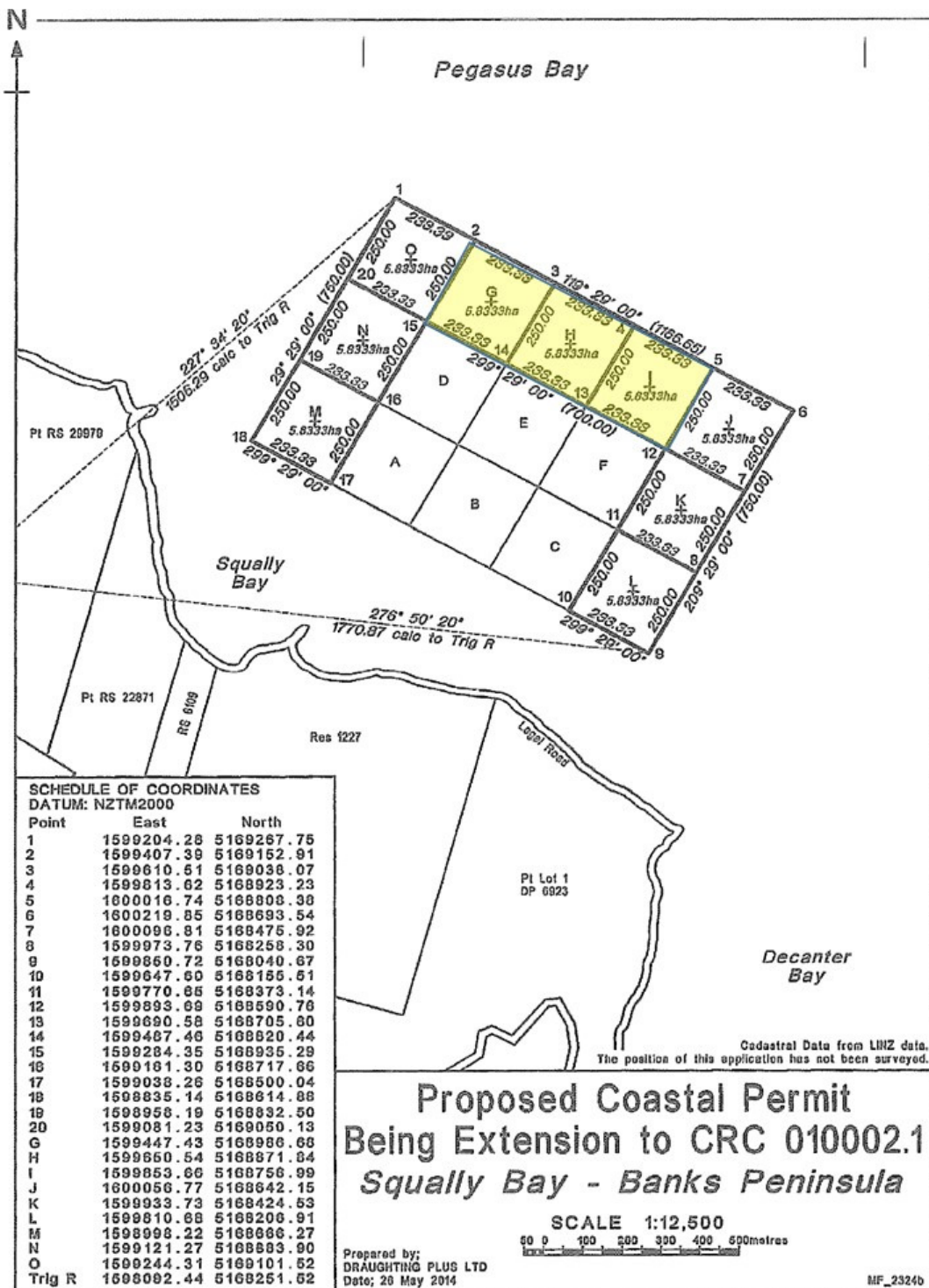
4 The proposal extends the existing farm north-eastwards towards the open waters of Pegasus Bay (Map 2). Squally Bay is within Fisheries Management Area 3 (FMA3) (Map 3).

² Disclaimer: This map and all information accompanying it (the “Map”) is intended to be used as a guide only, in conjunction with other data sources and methods, and should only be used for the purpose for which it was developed. The information shown in this Map is based on a summary of data obtained from various sources. While all reasonable measures have been taken to ensure the accuracy of the Map, MPI: (a) gives no warranty or representation in relation to the accuracy, completeness, reliability or fitness for purpose of the Map; and (b) accepts no liability whatsoever in relation to any loss, damage or other costs relating to any person’s use of the Map, including but not limited to any compilations, derivative works or modifications of the Map.

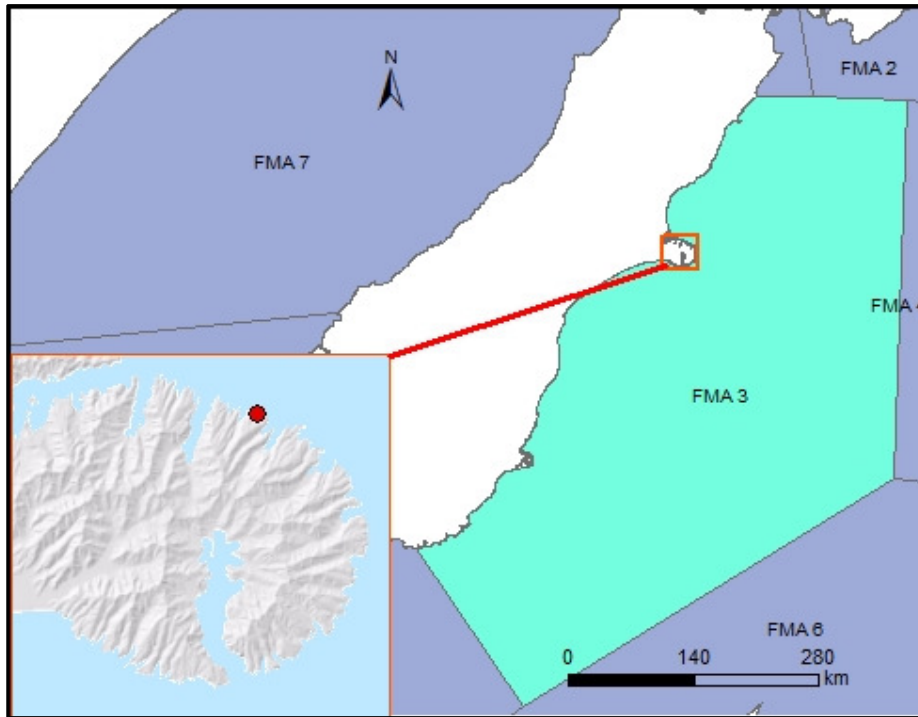
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Map 2: Location of the area of coastal permit CRC160457 in Squally Bay, Banks Peninsula. This proposal covers blocks G, H and I (highlighted in yellow) to the north of the existing farm (blocks A to F); Blocks J to O were declined by the CRC, and do not form part of the current assessment.



Map 3: Approximate location of the area of coastal permit CRC160457 within FMA3.

5 The existing farm was established under coastal permit CRC 10002 and consists of up to 66 longlines with a total backbone length of 8,798m. These are set out in six blocks each 233 by 250m, with each block containing 11 longlines spaced 24m apart, so that the consented area measures 700m by 500m. The consented area for the existing marine farm covers a greater surface area than that currently occupied, but does not account for the setbacks that occur due to the subsurface nature of the existing farm infrastructure of anchor blocks and anchor warps.

6 The benthic substrate beneath the site is very fine sand and muddy silt and clay mud (Sutherland, 2015). Water depth at the sites is around 10-20 m.

Structures

7 The area that coastal permit CRC160457 covers consists of three blocks of 233 by 250m, or 5.8 hectares (ha) each, giving a total of 17.46 hectares of new marine farm. The proposed extension includes 41 longlines spaced 18.5m apart, with a total a longline length (that is, the sum of the three blocks) of 5,465m (Figures 1a and 1b). The longline configuration allows a 100m gap between surface structures between each block (Sutherland, 2015).

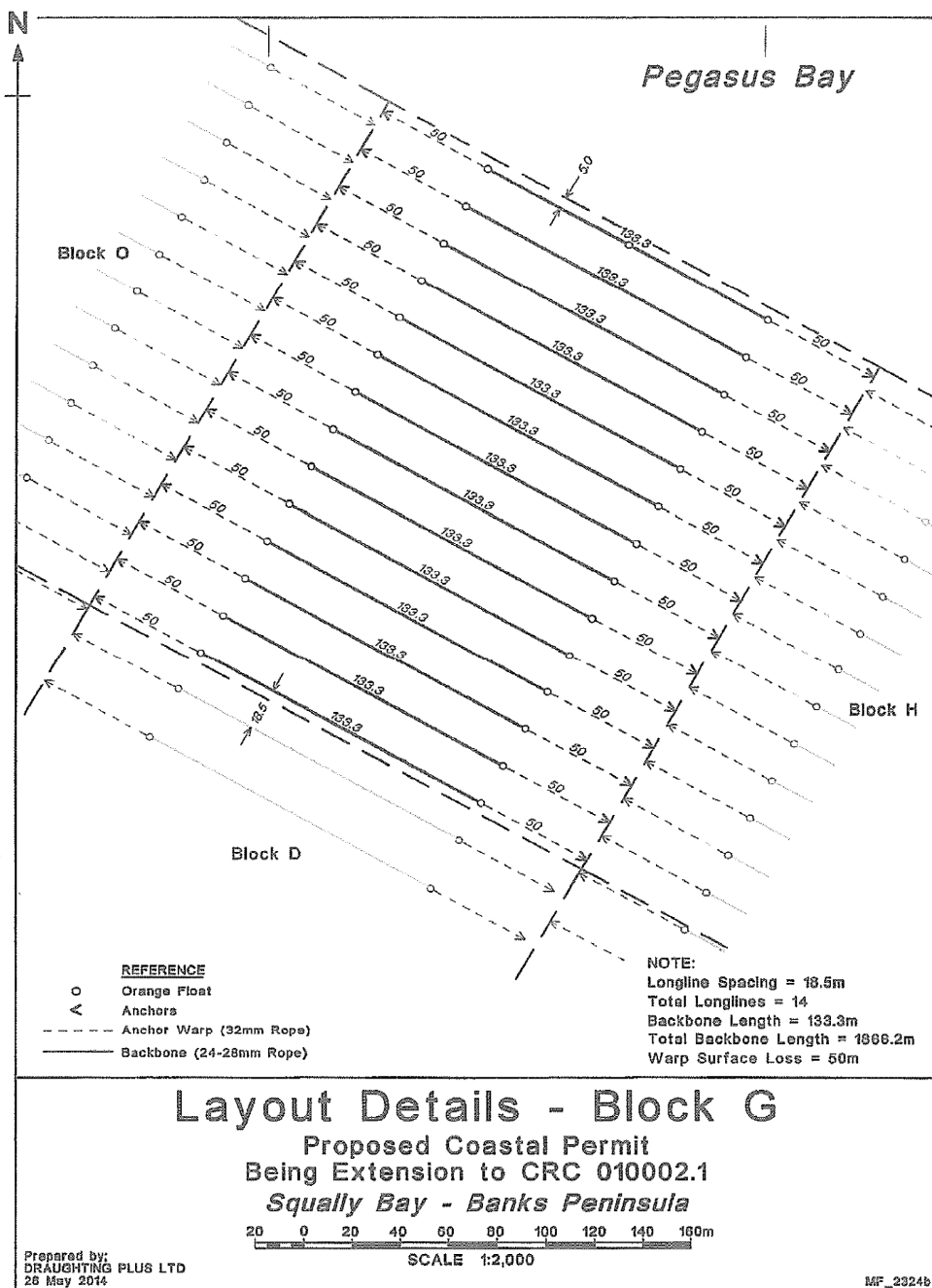


Figure 1a: Structures diagram for Block G of coastal permit area CRC160457. Block I (refer to Map 1) is identical in structure to Block G.

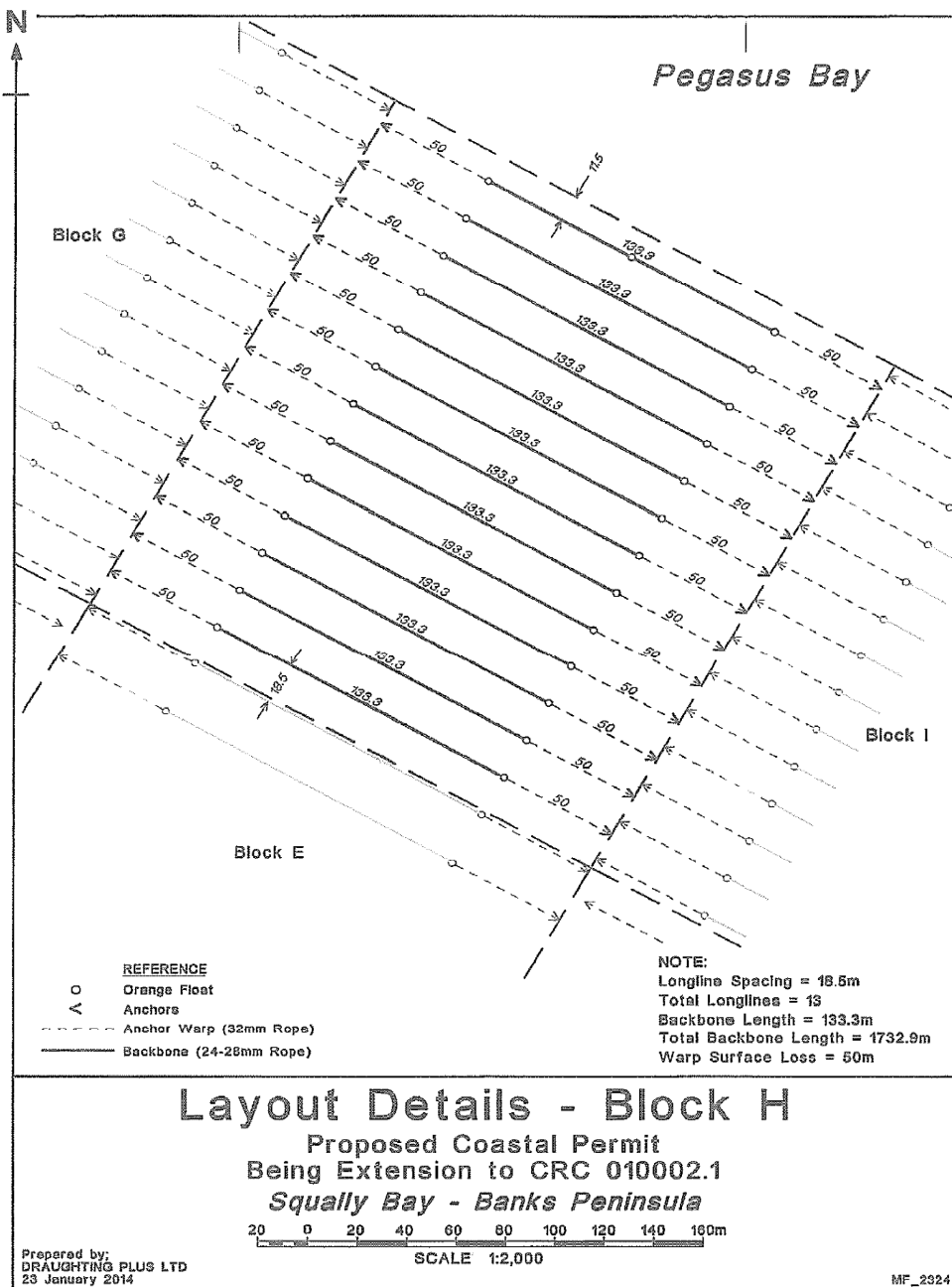


Figure 1b: Structures diagram for Block H of coastal permit area CRC160457. Block H is comprised of 13 longlines, in contrast to 14 longlines in Blocks G and I (refer to Map 1).

Input from stakeholders

8 MPI publicised the coastal permit application on its website on 12 October 2015, with submissions closing on 11 November 2015. This gave persons and organisations potentially affected by the proposed aquaculture activities an opportunity to provide information on their fishing activities in the area of coastal permit CRC160457.

9 MPI did not receive any submissions in response to the consultation.

STATUTORY CONTEXT

10 Section 186E(1) of the Fisheries Act requires me to make a determination or reservation (or one or more of them in relation to different parts of the area to which the request relates), within 20 working days after receiving a request for an aquaculture decision from a regional council.

11 A ‘*determination*’ is a decision that I am satisfied that the aquaculture activities authorised by the coastal permit will not have an undue adverse effect on fishing. A ‘*reservation*’ is a decision that I am not satisfied that the aquaculture activities authorised by the coastal permit will not have an undue adverse effect on fishing.

12 If I make a reservation, I am required to specify whether the reservation relates to customary, recreational or commercial fishing or a combination of them. If the reservation relates to commercial fishing, I must specify the stocks and area concerned—section 186H(4).

13 Section 186C of the Fisheries Act defines “adverse effect,” in relation to fishing, as restricting access for fishing or displacing fishing. An “undue adverse effect” is not defined. However, the ordinary meaning of “undue” is an effect that is unjustified or unwarranted in the circumstances. For the purpose of my decision under section 186E, an undue adverse effect will mean the significance of the effect on restricting access for fishing, displacing fishing or increasing the cost of fishing is unjustified or unwarranted in the circumstances.

14 When making an aquaculture decision, Section 186E(3) of the Fisheries Act³ requires me to have regard to any:

- (a) information held by the Ministry for Primary Industries; and
- (b) information supplied, or submissions made, to the Director-General under section 186D(1) or (3) by:
 - i. an applicant for or holder of the coastal permit;
 - ii. any fisher whose interests may be affected;
 - iii. persons or organisations that the Director-General considers represent the classes of persons who have customary, commercial or recreational fishing interests that may be affected by the granting of the coastal permit or change to, or cancellation of, the conditions of the coastal permit; and
- (c) information that is forwarded by the regional council; and
- (d) any other information that the Director-General has requested and obtained.

15 Section 186F of the Fisheries Act specifies an order of processing that must be followed in making aquaculture decisions. However section 186F(5) allows aquaculture decisions to be made

³ Section 186E(3)(a) of the Fisheries Act refers to the ‘Ministry of Fisheries’ which is now the Ministry for Primary Industries. Section 186E(3)(b) and (d) refers to the ‘chief executive’ who is now the director-general.

in a different order from that specified if I am satisfied that in making an aquaculture decision out of order it will not have an adverse effect on any other aquaculture decision that has been requested. I am so satisfied in this case.

16 Section 186GB(1) of the Fisheries Act specifies the only matters I must have regard to when making an aquaculture decision. These matters are as follows:

- (a) the location of the areas that the coastal permit relates to in relation to areas in which fishing is carried out;
- (b) the likely effect of the aquaculture activities in the areas that the coastal permit relates to on fishing of any fishery, including the proportion of any fishery likely to become affected;
- (c) the degree to which the aquaculture activities in the areas that the coastal permit relates to will lead to the exclusion of fishing;
- (d) the extent to which fishing for a species in the areas that the coastal permit relates to can be carried out in other area;
- (e) the extent to which the occupation of the coastal marine area authorised by the coastal permit will increase the cost of fishing; and
- (f) the cumulative effect on fishing of any authorised aquaculture activities, including any structures authorised before the introduction of any relevant stock to the quota management system.

17 Section 186GB(2) of the Fisheries Act specifies that if a pre-request aquaculture agreement has been registered under section 186ZH in relation to the areas that the coastal permit relates to, I must not have regard to the undue adverse effects on commercial fishing in respect of any stocks covered by the pre-request aquaculture agreement when having regard to the matters specified in section 186GB(1). No pre-request aquaculture agreements have been registered in relation to coastal permit CRC160457.

18 Section 186GB(1)(b) requires an assessment of the likely effects of the aquaculture activities on fishing of any fishery including the proportion of any fishery likely to be affected. “Fishery” is not defined either in section 186 or elsewhere in the Fisheries Act. However, “stock” is defined in section 2 to mean any fish, aquatic life, or seaweed of one or more species that are treated as a unit for the purposes of fisheries management. Parts (3) and (4) of the Fisheries Act focus on “stocks” for the purpose of setting and allocating Total Allowable Catches and managing species within the quota management system (**QMS**). Sections 186GB(1)(f) and (2) also refer to “stock” with specific regard to adverse effects on commercial fishing.

19 For the purpose of my decision under section 186E, I consider a commercial fishery is a fish stock delineated by a fisheries management area (FMA) or quota management area (QMA). However, because recreational and customary fishers are not bound to restrict their fishing activity by FMA or QMA, I consider the relevant customary and recreational fisheries are as I have described in the assessment below in my consideration of section 186GB(1)(a)—*Location of the coastal areas relative to fishing area*.

20 Section 186C of the Fisheries Act does not define “cumulative effect” beyond what is provided in section 186GB(1)(f), that the effect includes any structures authorised before the introduction of any relevant stock to the QMS. For the purpose of my decision under section 186E, “cumulative effect” on commercial fishing includes the total effect of all authorised aquaculture

activities within the relevant QMA or FMA. For customary and recreational fisheries, the relevant areas for considering “cumulative effects” are as I have described in the assessment below in my consideration of section 186GB(1)(a) and (f).

21 The *Fisheries (South Island Customary Fishing) Regulations 1999* (**the South Island Regulations**) define customary food gathering as the traditional rights confirmed by the Treaty of Waitangi and the *Treaty of Waitangi (Fisheries Claims) Settlement Act 1992*, being the taking of fish, aquatic life, or seaweed or managing of fisheries resources, for a purpose authorised by Tangata Tiaki/Kaitiaki, including koha, to the extent that such purpose is consistent with tikanga Māori and is neither commercial in any way nor for pecuniary gain or trade.

22 The South Island Regulations and regulation 50 and 51 of the *Fisheries (Amateur Fishing) Regulations 2013* (**the Amateur Regulations**) provide for Tangata Tiaki/Kaitiaki to determine the customary purpose for which fish, aquatic life, or seaweed may be taken, methods used, seasons fished, size and quantity taken etc. The South Island Regulations and regulations 50 and 51 do not contemplate restrictions under the Fisheries Act on the quantity of fish taken or the methods used to take fish. Should tangata whenua fish without customary authorisations, all the recreational limits under the Amateur Regulations apply.

ASSESSMENT

23 When making my aquaculture decision under section 186E of the Fisheries Act, I have considered all relevant information before me. The following sections of this paper provide an assessment of the effects of the proposed aquaculture activities on recreational, customary and commercial fishing against the matters set out above. For the purpose of my assessment, customary fishing differs from recreational fishing if it is undertaken outside of the recreational limits provided in the Amateur Regulations and is instead authorised by a customary authorisation.

24 This assessment relates to the 17.45 ha of new marine farming space authorised by coastal permit CRC160457.

Recreational fishing

Location of the coastal permit area relative to fishing areas

25 I consider the area of coastal permit CRC160457 is located where there is a relatively low intensity of recreational fishing for a variety of finfish and some shellfish. This is primarily by rod/line techniques from boats or kayaks and surfcasting. No information suggests the area of the coastal permit is especially important for recreational fishing.

26 Available information on recreational fishing activity at Banks Peninsula comprises:

- information provided in submissions;
- MPI information (fisheries officer observations, previous submissions, internet forums and local knowledge); and
- fishing surveys.

27 As noted above, no stakeholders provided information on the importance of the coastal permit area for recreational fishing. In addition, no recreational fishers objected to the most recently approved areas (MF 383 and MF 692 at Pigeon Bay⁴) on recreational fishing grounds. However, submissions on marine farm applications in Port Levy, also on the northern side of Banks Peninsula suggest most recreational fishing around Banks Peninsula occurs in the largest bays.

⁴ 11 December 2014

These large bays include Lyttelton Harbour, Port Levy, Pigeon Bay, Okains Bay, and Le Bons Bay which offer the most sheltered conditions. This means some fishing may occur at the area of coastal permit CRC160457, although, I consider it likely that fishing intensity is relatively low.

28 Some of the submissions on Port Levy marine farms identify methods used and species targeted or caught. A recreational fishing diary survey (in 1996) identifies methods used, species targeted and species caught at Banks Peninsula. This survey also gives an idea of the fishing activity that may occur at the areas of coastal permit CRC160457.⁵ Additionally, there is limited information on fishing around Banks Peninsula on forums on The Fishing Website⁶, as well as a recreational fishing survey of Akaroa Harbour conducted in 1997⁷.

29 Tables 1 and 2 below summarise my assessment of the main methods used and species targeted and caught by recreational fishers at the coastal permit area based on available information. As shown, I consider it likely that rod/handline techniques from boats or kayaks are the main methods used. I consider that red cod, flatfish, yellow-eyed mullet, kahawai, rig, barracouta and mussels are the species most likely to be taken.

Table 1. Recreational fishing methods used at the area of coastal permit CRC160457 based on submissions, the 1996 national recreational fishing diary survey and other information.

Information source	Method information
<i>1996 diary survey (top three methods)</i>	Shore-based rod/handline (43% of trips), rod/handline from private boat (30% of trips), set/gill net (14% of trips).
<i>Port Levy submissions</i>	Set netting, surf-casting and rod/line fishing from boats (eg, trolling, anchored fishing) are used at Port Levy.
<i>Forums on The Fishing Website</i>	Kayak fishing (particularly around mussel farms), surf casting from beaches and some rock fishing occur at Banks Peninsula.
<i>Other</i>	The area of coastal permit CRC160457 is located offshore of existing areas authorised for marine farming. The sites are relatively shallow (ie, 10-20 m deep). Since the 1996 diary survey was conducted and since the Port Levy submissions were made, set-netting has been prohibited along most of the east coast of the South Island to protect Hector's dolphins. ⁸
<i>My assessment</i>	Rod/hand lining is the most likely method to occur but other boat-based methods that target finfish (eg, long lining, potting) may also be used. A small amount of diving or dredging may also potentially occur given these methods are sometimes used by recreational fishers. Land-based methods such as hand gathering, beach seining and surf casting will not occur because structures inshore restrict these methods.

⁵ A national recreational fishing diary survey conducted in 1996 by NIWA (Fisher and Bradford, 1999).

⁶ The Fishing Website (www.fishing.net.nz) is a leading New Zealand website for information on recreational fishing in New Zealand. The website publishers work closely with New Zealand's main fishing organisations.

⁷ Bell, J. (1997) Results from the Akaroa Harbour Recreational Fishing Survey 1997. Final research report for the Ministry of Fisheries Project REC9705. Dunedin: J.D Bell & Associates

⁸ Set netting is prohibited year round under the Amateur Regulations.

Table 2. Species targeted and caught by recreational fishers at the area of coastal permit CRC160457 based on submissions, the 1996 national recreational fishing diary survey and other information.

Information source	Species information
<i>1996 diary survey (top three species)</i>	Targeted species: red cod (36% of trips), flatfish (12% of trips), blue cod (11% of trips). Caught species: red cod (29% of trips), flatfish (26% of trips), yellow-eyed mullet (7% of trips).
<i>Port Levy submissions</i>	Kahawai, red cod, rig, barracouta, wrasse, leather jacket, moki and butterflyfish, mussels and paua are the most commonly caught species at Port Levy.
<i>Forums on The Fishing Website</i>	Banks Peninsula is fished for kingfish, moki, kahawai, red cod, spiny dogfish, skate, elephant fish, rig and other shark species.
<i>Other</i>	The mud habitat is suitable for a variety of finfish and some shellfish that are not typically associated with hard substrates/reef. The only shellfish of recreational fishing value observed at the site was green-lipped mussel. The sites are relatively shallow (ie, 10-20 m deep).
<i>My assessment</i>	Red cod, flatfish, yellow-eyed mullet, kahawai, rig and barracouta are the species most likely to be taken but other finfish and mussels may also be caught. It is unlikely that blue cod, moki, butterflyfish, leatherjacket, wrasse or paua are taken because these are not typically associated with mud habitat.

Exclusion of fishing

30 I consider the aquaculture activities proposed for the area of coastal permit CRC160457 will exclude only a small amount of recreational fishing.

31 Anchored rod/line fishing and potting could continue within the coastal permit area but it is likely that mobile rod/line fishing from boats (ie, drift fishing, trolling) and longlining would be excluded.⁹ I consider that some of the species taken by drift fishing, trolling or longlining in the coastal permit areas could still be taken using alternative fishing methods however. For example, kahawai could be taken by anchored fishing between the proposed marine farm structures.

Availability of other fishing areas

32 I consider there are other areas available for recreational fishing in Squally Bay and elsewhere at Banks Peninsula.

33 The only year round area closures for recreational fishing around Banks Peninsula are the Pahutu (Flea Bay) and Akaroa marine reserves, but some year round method and species restrictions apply. As described above, set netting is prohibited along the east coast of the South Island (excluding the Banks Peninsula seasonal flounder areas which include the upper reaches of Akaroa Harbour, Port Levy, Pigeon Bay and Lyttelton Harbour). Taking seahorses from the Akaroa Taiāpure is also prohibited, as is taking shellfish from Onawe Peninsula within the taiāpure.¹⁰ Take of cockles is restricted in the Koukourarata Mātaitai Reserve.¹¹ Furthermore, take of skate, stingray, paua and seaweed (excluding *Undaria*) is prohibited within the Rapaki Bay Mātaitai Reserve in Lyttelton Harbour.¹² Take of toheroa is prohibited nationwide.¹³

⁹ It is common for fishers to fish within mussel farms. However, anecdotal information from recreational fishers (FMA7 Recreational Fishing Forum, 27 May 2013) suggests that spaces between long lines of mussel farms in the Marlborough Sounds are too narrow for drift fishing, trolling, set netting and long lining without risk of entanglement.

¹⁰ Take of seahorses and shellfish from the Akaroa Taiāpure is prohibited under the Amateur Regulations.

¹¹ Take of cockles is restricted in the Koukourarata Mātaitai Reserve is restricted under *Fisheries (Koukourarata Mātaitai Reserve Bylaws) Notice 2006 (No. F370)*

¹² Take of skate, stingray, paua and seaweed (excluding *Undaria*) from the Rapaki Bay Mātaitai Reserve is prohibited under *Fisheries (Rapaki Bay Mātaitai Reserve Bylaws) Notice 2000 (No. F165)*.

¹³ Take of toheroa is prohibited under the Amateur Regulations.

34 There are also seasonal restrictions on the take of scallops and dredge oysters in the wider area of FMA3.¹⁴

35 However, none of these prohibitions or restrictions relate to any species I consider likely to be targeted by recreational fishers within the area of coastal permit CRC160457. Additionally, no information suggests the coastal permit area is especially productive or important for a particular species. I therefore consider that there are other fishing areas available to recreational fishers who may fish in the area of coastal permit CRC160457.

Increased cost of fishing

36 I consider the aquaculture activities proposed for the area of coastal permit CRC160457 will result in a minimal, if any, increase in the cost of recreational fishing.

37 Taking into account the availability of alternative areas for recreational fishing, I consider there is a high likelihood that any recreational fishing excluded from the area of coastal permit CRC160457 could be carried out nearby with minimal additional cost.

Likely effect on fishing

38 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the area of coastal permit CRC160457 will be small.

39 MPI cannot estimate an average annual recreational catch, or proportion of recreational catch, likely to be affected by the proposed aquaculture activities. There is little quantitative data available on recreational catch taken from Squally Bay or the wider area of Banks Peninsula. This means MPI can only make an assessment of the effect of the proposed aquaculture activities on recreational fishing based on qualitative information.

40 As noted, I consider it likely that the area of coastal permit CRC160457 is located where recreational fishing intensity is relatively low. In addition, as noted, there are likely to be other areas available for fishers who may fish in the area of coastal permit CRC160457. For these reasons I consider the proposed aquaculture activities will only have a small effect on recreational fishing, if any.

Cumulative effects

41 I consider effects from the aquaculture activities proposed for the area of coastal permit CRC160457, added to the effects of existing aquaculture at Banks Peninsula, will not have an undue cumulative effect on recreational fishing.

42 There is no quantitative catch data available to assess the cumulative effects of authorised aquaculture activities on recreational fishing catch. As discussed previously, recreational fishers are not required to report catch or fishing locations. MPI can therefore only assess cumulative effects on recreational fishing based on the amount of aquaculture already authorised in the relevant recreational fishery and the likely importance of the coastal permit area for recreational fishing.

43 There is 194 ha of authorised aquaculture space at Banks Peninsula, most of which is on the northern side of Banks Peninsula. I consider that the existing marine farms have had some cumulative effect on recreational fishing because some recreational fishing methods are excluded from the marine farms. However, I consider the existing marine farms have not had an undue adverse effect on recreational fishing. This is because not all the authorised aquaculture space is a

¹⁴ Scallop and oyster take is seasonally restricted for recreational fishing under the Amateur Regulations.

popular fishing area and some fishing (eg, anchored rod and line fishing) can occur both outside and within the existing marine farms.

44 As noted, I also consider that occupation of the area of coastal permit CRC160457 would have a small effect on recreational fishing. However, I am satisfied that the new aquaculture space from coastal permit CRC160457, added to the existing aquaculture at Banks Peninsula, would not have an undue cumulative effect on recreational fishing.

Conclusion on effects on recreational fishing

45 I am satisfied the aquaculture activities proposed within the area of coastal permit CRC160457 will not have an undue adverse effect on recreational fishing because:

- no information suggests the coastal permit area is especially important for recreational fishing;
- the proposed aquaculture activities will exclude only a small amount of recreational fishing;
- there are other areas available for recreational fishing within Squally Bay and elsewhere at Banks Peninsula;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of recreational fishing;
- the effect on recreational fishing catch will be small; and
- the cumulative effect on recreational fishing would not be undue.

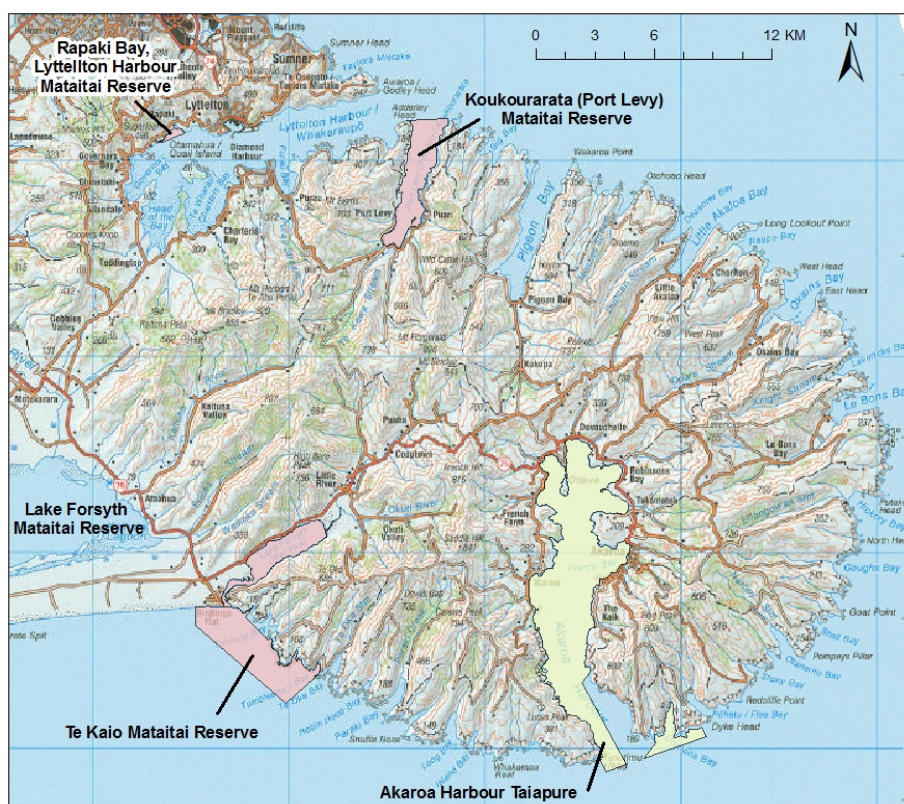
Customary fishing

The location of the coastal permit area relative to fishing areas

46 I consider the area of coastal permit CRC160457 is located where there is a relatively low intensity of customary fishing for a variety of finfish and some shellfish, primarily by rod/handline fishing, long lining, set netting and spear fishing. No information suggests the coastal permit area is especially important for customary fishing.

47 Available information on customary fishing is primarily qualitative information from submissions and quantitative catch information from customary authorisations. There is limited information on customary catch at the scale of small marine farms, however. Fishing locations for customary authorisations only need to be reported at the FMA or QMA scale, although more specific sites are sometimes identified. Methods are not reported from customary authorisations.

48 There are four mātaihai reserves and one taiāpure reserve at Banks Peninsula. Additionally, an application has been made for a taiāpure-local fishery in Whakaraupo/Lyttelton Harbour. Two of these customary management areas (the Rapaki Bay and Koukourarata mātaihai reserves) are on the northern side of Banks Peninsula (Map 4).



Map 4: Customary management areas at Banks Peninsula.

49 Banks Peninsula falls within area/rohe moana of Te Rūnanga o Ngai Tahu and Te Rūnanga o Koukourarata. While none of the customary management areas overlap the area of coastal permit CRC160457, I consider that Te Rūnanga o Ngai Tahu and Te Rūnanga o Koukourarata could have customary fishing interests in the coastal permit area due to the number of customary management areas of different rūnanga around Banks Peninsula.

50 No submitters provided information on the importance of the coastal permit area for customary fishing. In addition, no customary fishers objected to the most recently approved area at Pigeon Bay (MF 692) on customary fishing grounds. However, customary fishers commenting on Port Levy marine farm applications have stated a number of species are taken using various fishing methods. Furthermore, customary authorisations¹⁵ issued between January 2009 and October 2013 contain information on species targeted.

51 Tables 3 and 4 below summarise my assessment of the main methods used and species targeted and caught by customary fishers at the areas of coastal permit CRC160457 based on the available information. I consider it likely that rod/handline fishing, long lining, set netting and spear fishing are the main methods used at the sites and that kahawai, red cod, rig, barracouta, flounder, yellow-eyed mullet, elephant fish, gurnard and spiny dogfish and green-lipped mussels are the main species fished.

¹⁵ Issued under the South Island Regulations.

Table 3. Customary fishing methods used at the area of coastal permit CRC160457 based on submissions, customary authorisations and other information.

Information source	Method information
<i>Port Levy submissions</i>	Set netting, rod/line (eg, trolling, anchored fishing), diving (spear fishing), hand gathering, drag netting and potting are used at Port Levy.
<i>Other</i>	The area of coastal permit CRC160457 is located offshore of existing areas authorised for marine farming. The sites are relatively shallow (ie, 10-20 m deep).
<i>My assessment</i>	Rod/hand lining, long lining, potting, set netting and spear fishing are the methods most likely to be used. A small amount of dredging or diving could also potentially occur given these methods are sometimes used by customary fishers. Land-based methods such as hand gathering, drag netting and surf casting would not occur because structures inshore restrict these methods.

Table 4. Species targeted and caught by customary fishers at the area of coastal permit CRC160457 based on submissions, customary authorisations and other information.

Information source	Species information
<i>Port Levy submissions</i>	Kahawai, red cod, rig, barracouta, wrasse, leather jacket, moki and butterfish, flounder, rock lobster, crabs, mussels, cockles, rock oysters and paua are the most commonly caught species at Port Levy
<i>Customary authorisations</i>	Rock lobster, butterfish, moki, flatfish, paua, blue cod, hapuku/bass, kina, green-lipped mussel, pipi, bull kelp, yellow-eyed mullet, gurnard, spiny dogfish, rig, cats eye, cockles, elephant fish, tuatua
<i>Other</i>	The mud habitat at area of coastal permit CRC160457 is suitable for a variety of finfish and some shellfish that are not typically associated with hard substrates/reef The site is relatively shallow (ie, 10-20 m deep)
<i>My assessment</i>	Kahawai, red cod, rig, barracouta, flounder, yellow-eyed mullet, elephant fish, gurnard, spiny dogfish and green-lipped mussels are the species most likely to be taken It is unlikely that blue cod, moki, butterfish, leatherjacket, wrasse, rock lobster, kina, paua, rock oysters, cats eye or bull kelp are taken because these are not typically associated with mud habitat. It is unlikely that hapuku/bass are taken because they are usually caught in areas deeper than at the area of coastal permit CRC160457. It is also unlikely that tuatua, pipi, cockles, crabs are taken because these are usually taken in intertidal/nearshore areas

Exclusion of fishing

52 I consider the aquaculture activities proposed for the area of coastal permit CRC160457 will exclude only a small amount of customary fishing.

53 As for recreational fishers, it is likely that mobile rod/line fishing from boats (ie, drift fishing, trolling) and longlining would be excluded.¹⁶ However, anchored rod/line fishing and potting by customary fishers could continue within the coastal permit areas I also consider that some of the species taken by drift fishing, trolling or longlining in the coastal permit areas could still be taken using alternative fishing methods however. For example, kahawai could be taken by anchored fishing between the proposed marine farm structures.

Availability of other fishing areas

54 I consider there are other areas available for customary fishing in Squally Bay and elsewhere at Banks Peninsula.

¹⁶ It is common for fishers to fish within mussel farms but anecdotal information from recreational fishers (FMA7 Recreational Fishing Forum, 27 May 2013) suggests that spaces between long lines of mussel farms in the Marlborough Sounds are too narrow for drift fishing, trolling, set netting and long lining without risk of entanglement. The Squally Bay marine farm extension will have longlines spaced 18.5m apart (the existing part of the marine farm has longlines spaced 24m apart). This may allow access for small recreational boats, at least under favourable sea conditions.

55 Apart from the Pahutu (Flea Bay) and Akaroa marine reserves, all of Banks Peninsula is available for customary fishing under the South Island Regulations. Customary fishers would still be able to fish unimpeded within most waters of Banks Peninsula. Furthermore, the proposed aquaculture activities will only exclude a small amount of customary fishing. I therefore consider there are other customary fishing areas within Squally Bay and the wider Banks Peninsula area that could accommodate any customary fishing displaced from the area of coastal permit CRC160457.

Increased cost of fishing

56 I consider the aquaculture activities proposed for the area of coastal permit CRC160457 will result in a minimal, if any, increase in the cost of customary fishing.

57 Taking into account the availability of alternative areas for customary fishing, I consider there is a high likelihood that any customary fishing excluded from the area of coastal permit CRC160457 could be carried out nearby with minimal additional cost.

Likely effect on fishing

58 I consider the likely effect on customary fishing from the aquaculture activities proposed in the area of coastal permit CRC160457 will be small.

59 There is no available quantitative data on customary catch taken from the Banks Peninsula area. As noted, site-specific fishing locations are not typically reported with customary authorisations. MPI is therefore unable to estimate an average annual customary catch, or proportion of customary catch, likely to be affected by the proposed aquaculture activities. MPI can only make an assessment of the effect of the proposed aquaculture activities on customary fishing based on qualitative information.

60 As noted, I also consider it likely that the area of coastal permit CRC160457 is located where customary fishing intensity is relatively low, and there is likely to be other areas available for fishers who may fish in the area of coastal permit CRC160457. For these reasons I consider the proposed aquaculture activities will only have a small effect on customary fishing, if any.

Cumulative effects

61 I consider effects from the activities authorised by coastal permit CRC160457, added to the effects of existing aquaculture at Banks Peninsula, will not have an undue cumulative effect on customary fishing.

62 There is no quantitative catch data available to MPI to assess the cumulative effect of authorised aquaculture activities on customary fishing. As noted, site-specific fishing locations are not typically reported with customary authorisations. MPI can therefore only make an assessment of the cumulative effect of the proposed aquaculture activities on customary fishing based on the likely importance of the coastal permit area for customary fishing and the amount of aquaculture activities already authorised in the relevant customary fishery.

63 As discussed, I consider that the area of coastal permit CRC160457 would have a small effect on customary fishing. I consider the existing amount of authorised aquaculture space has not had an undue adverse effect on customary fishing because not all the space is popular fishing area and some fishing (eg, anchored rod and line fishing) can occur within the existing marine farms. I therefore consider that the new aquaculture space authorised by coastal permit CRC160457, added

to existing aquaculture activities at Banks Peninsula, would not have an undue cumulative effect on customary fishing.

Conclusion on effects on customary fishing

64 I am satisfied the aquaculture activities proposed within the area of coastal permit CRC160457 will not have an undue adverse effect on customary fishing because:

- MPI has no information to suggest the coastal permit area is especially important for customary fishing;
- the proposed aquaculture activities will exclude only a small amount of customary fishing;
- there are other areas available for customary fishing within Squally Bay and elsewhere at Banks Peninsula;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of customary fishing;
- the effect on customary fishing catch will be small; and
- the cumulative effect on customary fishing would not be undue.

Commercial fishing

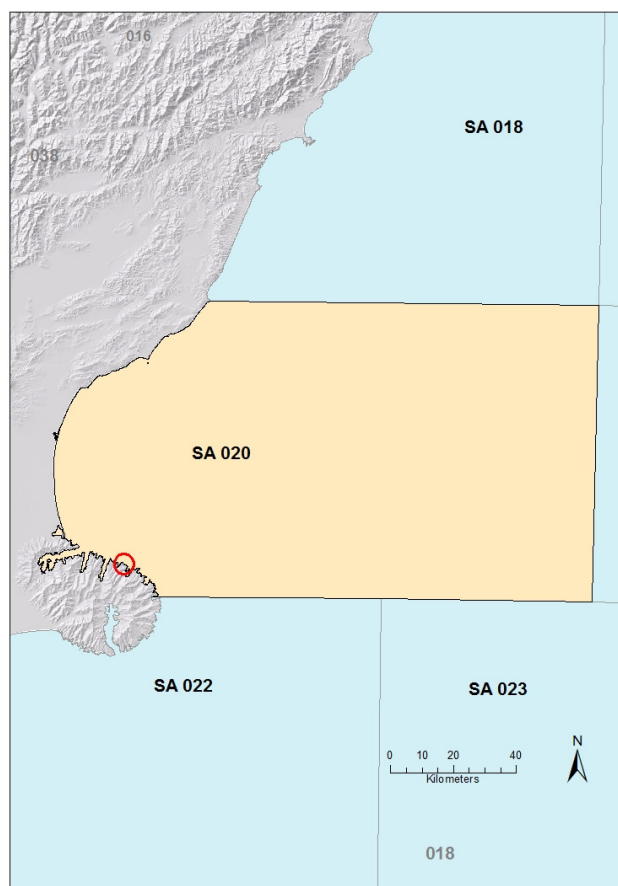
The location of the coastal permit area relative to fishing areas

65 I consider the area of coastal permit CRC160457 is located where only a small amount of commercial fishing may occur.

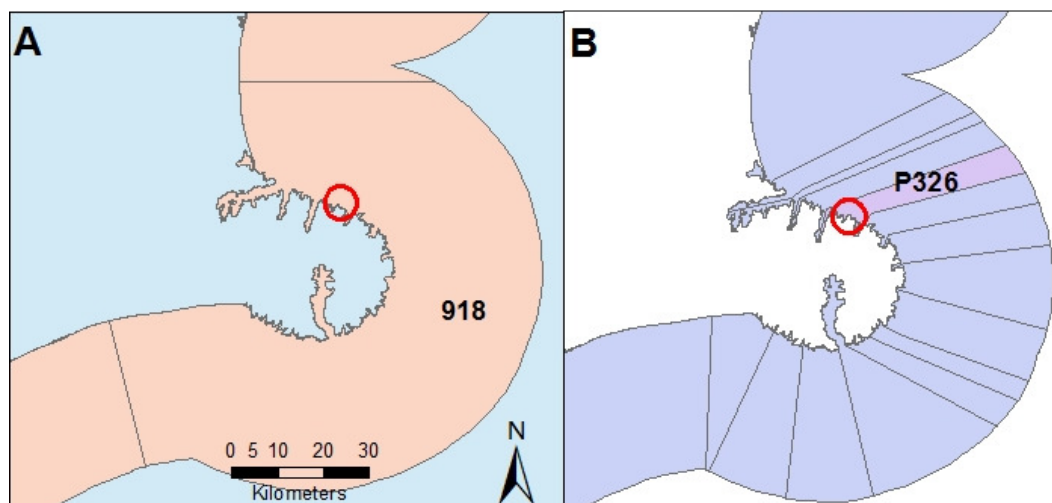
66 As noted, no submitters provided information on the importance of the area of coastal permit CRC160457 for commercial fishing. Further, no commercial fishers objected to the most recent area (Pigeon Bay, MF 692 in 2014) or sites in Port Levy on commercial fishing grounds.

67 The only other information available on commercial fishing is reported catch data. Historically, most commercial fishing has been reported by statistical area. The area of coastal permit CRC160457 is located in statistical area 020 (**SA020**), which extends from Point Gibson to Le Bons Bay (14,914 km²) (Map 5).

68 Scallops, oysters, rock lobster and paua are reported by species-specific statistical areas rather than by general statistical area. The area of coastal permit CRC160457 falls within rock lobster statistical area 918 and paua statistical area P326 (Maps 6A and 6B) but is not within any statistical areas for scallops or oysters. No commercial fishing targeting scallops or oysters occurs at Banks Peninsula.



Map 5: Location of SA020. The red circle marks the approximate location of the area of coastal permit area CRC160457.



Map 6: Species-specific statistical areas that encompass the area of coastal permit CRC160457. The red circle marks the approximate location of the area of coastal permit CRC160457. A – Rock lobster statistical area 918. B – Paua statistical area P326.¹⁷

¹⁷ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>

69 Reporting by statistical area only provides coarse-scale information about where commercial fishing occurs. However, since 2007/08 vessels over 6 m long that have used trawl or line fishing methods¹⁸ have had to report the start position of each fishing event by latitude and longitude to within 1 minute, which equates to around 1 nautical mile (**nm**). Since 2006/07, start positions for netting methods¹⁹ used by vessels over 6 m long, have had to report to within 2 nm.²⁰ Using this fine scale position data, MPI has modelled and mapped fishing intensity for different segments of fishing, characterised by a type of fishing gear and the main species caught.

70 The location of fishing by vessels less than 6 m long within SA020 is unknown. However, based on information from fisheries officers and Maritime New Zealand, MPI has mapped long lining, bottom trawling and set-netting by vessels less than 6 m as being within enclosed bays and within 3 nm of open coasts. The fishing by vessels less than 6 m is included in the maps of fine scale position data, which is the best information available from fisheries statistics. Knowledge about species and information from commercial fishers can also help to determine whether specific types of fishing are likely to occur in an area.

71 Table 5 below lists the main fishery segments known to occur in SA020 and summarises my assessment of which fishery segments are likely to overlap the area of coastal permit CRC160457. Maps 7A and 7B below show the annual average fishing effort per ha (for fishing years 2007/08–2011/12) for the main overlapping fishery segments with fishing reported by latitude and longitude and by statistical area.

72 Table 5 also gives the relative amounts of trawl, line and net fishing that report by start position. The higher the proportion of vessels reporting by start position, the greater the confidence we can have in the location of fishing, as depicted in Maps 7a and 7b.

¹⁸ Bottom long lining, surface long lining or trot lines

¹⁹ Set-netting or drift-netting

²⁰ *Fisheries (Reporting) Regulations 2001*.

Table 5: Fishery segments that are included in the commercial fishing assessment: Summary of the main fishery segments, defined by fishing method and main fishstock caught or fishing depth range, in relevant statistical areas from 2007/08 to 2011/12.

Fishery segment (Main fishstock or depth range and main fishing method) ^A	Statistical area	% reported by position	Average annual no. fishing days ^B	% of main fishstock caught in statistical area	Included in assessment?	Rationale for excluding fishery from assessment ^C
Inshore Mix <80m depth, Trawl	020	100%	455	NA	Yes	
Rough Skate (RSK3), Trawl	020	100%	360	19%	Yes	
Flatfish (FLA3), Trawl	020	100%	240	6%	Yes	
Barracouta (BAR1), Trawl	020	100%	231	14%	Yes	
Red Cod (RCO3), Trawl	020	100%	219	12%	Yes	
Ling (LIN3), Dahn Line	020	100%	167	36%	Yes	
Tarakihi (TAR3), Trawl	020	100%	154	26%	Yes	
Gurnard (GUR3), Trawl	020	100%	84	19%	Yes	
Elephant Fish (ELE3), Trawl	020	100%	75	13%	Yes	
Stargazer (STA3), Trawl	020	100%	73	22%	Yes	
Blue Warehou (WAR3), Trawl	020	100%	71	12%	Yes	
Spiny Dogfish (SPD3), Trawl	020	100%	54	22%	Yes	
Silver Warehou (SWA3), Trawl	020	100%	48	18%	Yes	
Mixed fishery, Long Lining	020	99%	41	NA	Yes	
Paddle Crab (PAD3), Potting	020	0%	24	2%	Yes	
Rock Lobster (CRA5), Lobster Pot	917,918	0%	1501	22%	No	The area of the coastal permit does not have rocky reef or hard substrate where rock lobsters are mainly caught

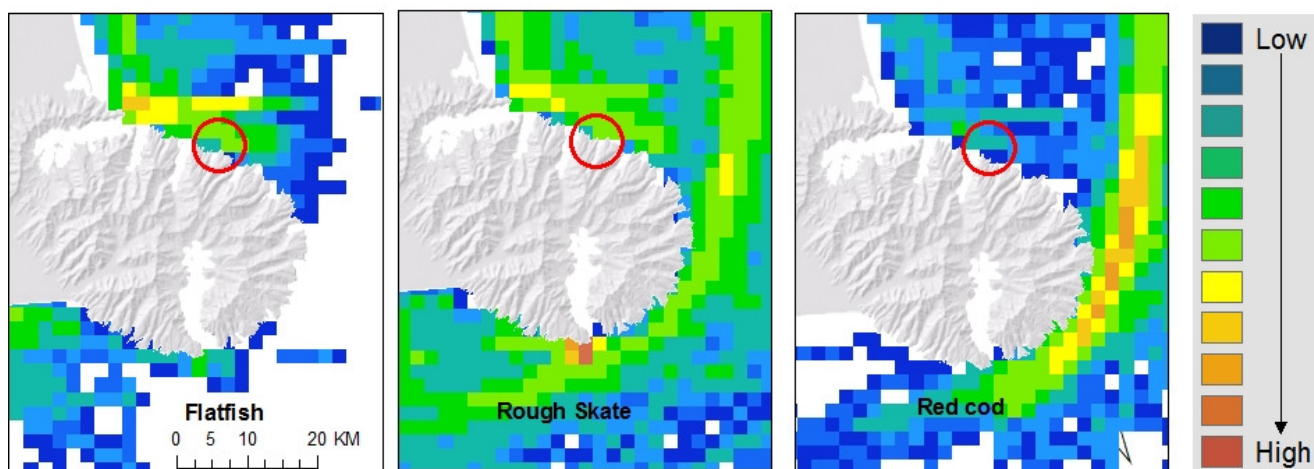
Table 2 continued:

Fishery segment (Main fishstock or depth range and main fishing method) ^A	Statistical area	% reported by position	Average annual no. fishing days ^B	% of main fishstock caught in statistical area	Included in assessment?	Rationale for excluding fishery from assessment ^C
Hoki (HOK1), Trawl	020	100%	573	11%	No	This type of fishing is unlikely to occur in the area of the coastal permit because hoki is a middle depth species
Inshore Mix >80m <300m, Trawl	020	100%	91	NA	No	Depth of area of coastal permit is < 80m
Mixed Fishery, Danish Seine	020	0%	81	NA	No	Danish seining is prohibited in Squally Bay
Paua (PAU3), Diving	P314, P315, P316, P317, P318, P319, P320, P321, P324	0%	54	16%	No	The area of the coastal permit does not have rocky reef or hard substrate where paua are caught
Ribaldo (RIB3), Long Lining	020	100%	38	71%	No	Ribaldo is unlikely to be caught at the area of the coastal permit because it is a deep water species
Inshore Mix >300m, Trawl	020	100%	35	NA	No	Depth of area of coastal permit is < 300m
Gurnard (GUR3), Danish Seine	020	0%	27	19%	No	Danish seining is prohibited in Squally Bay
Surf Clam (PDO3), Dredging	020	0%	19	NA	No	Surf clams are generally found in sandy intertidal zones. The area of the coastal permit does not overlap this habitat
Elephant Fish (ELE3), Danish Seine	020	0%	19	13%	No	Danish seining is prohibited in Squally Bay
Tarakihi (TAR3), Danish Seine	020	0%	13	26%	No	Danish seining is prohibited in Squally Bay
Red Cod (RCO3), Danish Seine	020	0%	12	12%	No	Danish seining is prohibited in Squally Bay
School shark (SCH3), Set Net	020	100%	12	16%	No	Set netting is prohibited in Squally Bay

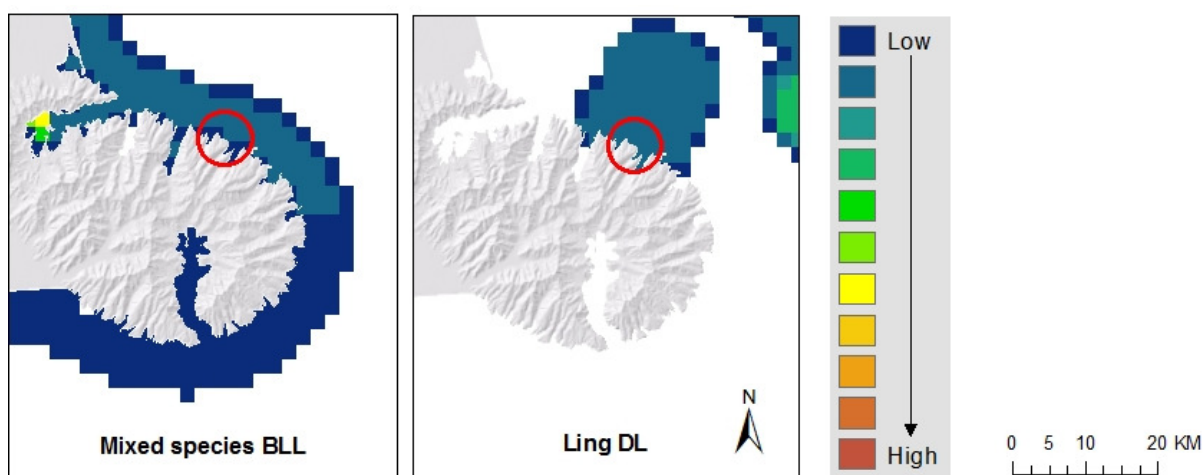
^A Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

^B Excludes segments with less than five days fishing per year.

^C Unless otherwise stated, fishing is permitted and MPI has no information indicating it does not occur in vicinity of coastal permit areas.



Map 7a: Fishing intensity for trawling fishery segments likely to overlap the area of coastal permit CRC160457 (approximate location marked by red circle).²¹



Map 7b: Fishing intensity for lining fishery segments likely to overlap the area of coastal permit CRC160457 (approximate location marked by red circle).

73 The remainder of this assessment of the effects on commercial fishing relates to the fishing sectors identified in Table 5 and Maps 7a and 7b as potentially occurring in the area of coastal permit CRC160457.

²¹ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-BY. <http://creativecommons.org/licenses/by/3.0/nz/>

Exclusion of fishing

74 I consider the aquaculture activities proposed for the area of coastal permit CRC160457 will exclude only a small amount of commercial fishing.

75 As shown in Table 5, a small amount of long lining for ling and trawling for other species may occur in the area of coastal permit CRC160457. The main stocks landed are ling and spiny dogfish (dahn long lining), with smaller amounts of rig landed by bottom long lining.

76 The exclusion zone for long lining in this assessment is therefore the coastal permit area (i.e. 17.46 ha) along with the existing 35 ha. Note that with the exception of cumulative effects, we are not considering the effect of existing aquaculture in this assessment.

77 With the exception of trawling, the exclusion zone for commercial fishing methods in this assessment (as identified in Table 2) is the area of coastal permit CRC160457 (ie, 17.46 ha). This is because the methods could occur immediately adjacent to but not within the coastal permit area. Although structures are not permitted in parts of the coastal permit area, I consider it unlikely that commercial fishers would go out of their way to fish these relatively small sites.

78 For trawl fishing a 250 m exclusion zone was added to the coastal permit area to reflect the minimum distance commercial trawl vessels can operate from marine farm structures. Taking into account area already excluded by existing marine farms, the coastal permit area would exclude 29.6 ha from trawling.

Availability of other fishing areas

79 I consider that any commercial fishing displaced from the area of coastal permit CRC160457 could occur in other areas in SA020 and FMA3.

80 There are commercial closures or restrictions in other parts of SA020, or FMA3 (including various species, method, time period, fishing gear, or a combination of these criteria).²² The only fishing method specifically prohibited in Squally Bay is trawling, which is prohibited under s 4(a) of the Fisheries (South-East Area Commercial Fishing) Regulations 1986 in the very inner-most, shoreward part of Squally Bay. However, aside from the area of coastal permit CRC160457 and the existing structures at that site, the permitted methods could occur elsewhere in Squally Bay, and most other parts of SA020 and the relevant QMAs or FMA3. I consider the extent of the closures does not significantly limit the potential for alternative fishing grounds and that any fishing displaced from the areas of the coastal permit could be absorbed.

81 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, this existing aquaculture space makes up around 6% of the aquaculture in FMA3. In statistical area 20 there are approximately 2,850 ha of authorised aquaculture farms, including 158 ha of authorised aquaculture farms around Banks Peninsula. The cumulative effect of the existing aquaculture is considered further below.

Increased cost of fishing

82 I consider that the aquaculture activities proposed for the area of coastal permit CRC160457 will not increase the cost of commercial fishing.

83 While the area of the coastal permit may be located within a region used for commercial fishing, I consider the use of alternative commercial fishing grounds would not result in an increase in the cost of commercial fishing. This is because the area of the coastal permit will only exclude a

²² Fisheries (South-East Area Commercial Fishing) Regulations 1986.

small area from commercial fishing and there are likely to be equally productive fishing grounds available nearby.

Likely effect on fishing

84 I consider the aquaculture activities proposed in the area of coastal permit CRC160457 will have a small, if any, adverse effect on any commercial fishery.

85 The amount of fishing effort estimated to be displaced by the activities proposed in the areas of coastal permit CRC160457 is negligible. For fishing assessed (as indicated in Table 5) less than 100 kg of average annual catch is likely to be affected by the proposed aquaculture activities.

86 The maps of fishing intensity (effort per ha) for each fishery segment were used to calculate the average annual amount of fishing effort likely to be displaced from the exclusion zones of the coastal permit area. Average landings per unit effort for all species caught in each fishery segment were then used to estimate the amount of fish likely to have been landed from the area of coastal permit CRC160457.

87 Fishing effort that is reported by statistical area was apportioned evenly across the area available for fishing although some areas are likely to include more productive habitats than others. The parts of the statistical area available for fishing for each type of fishing method are defined by using all available information (including regulated closures, bathymetry, seabed substrate, and consultation with fishers) about where the method is likely to be used. Where fishing is reported to the statistical area level, there is increased uncertainty as to where fishing events have taken place within the statistical area.

88 The amount of fishing was averaged over October fishing years 2007/08 to 2013/14. Seven years is long enough to take into account natural variation in the abundance and distribution of fish stocks and fishing effort so that likely average future fishing is fairly represented.

89 The largest percentage effect on any fishstock with more than 1000kg annual catch is on SPZ3 (spotted stargazer) with an estimated 0.06% of SPZ3 catch affected.

90 As shown in Table 5, bottom trawl fisheries targeting flatfish, elephant fish, gurnard and mixed target species occur in the area of the proposed marine farm extension. In all cases, < 25 kilograms of these individual stocks are estimated to have been landed using all methods, and only rough skate, flatfish and red cod landings exceed 10 kg.

91 In any event, effort could be transferred to immediately adjacent to the expanded marine farm, and there is unlikely to be any undue adverse effect with respect to displaced long lining resulting from the marine farm expansion.

92 Given the very small catch quantities likely to be affected by the proposed aquaculture activities, MPI has not attempted to determine the changes in catch rates for the displaced fishing in order to estimate the net effect on commercial fishing. This assessment is based on the worst-case scenario that all of the catch displaced from the areas of the coastal permit would be lost from the affected fisheries and not caught elsewhere.

Cumulative effects

93 I consider the cumulative effect on commercial fishing from authorised aquaculture activities in FMA3 is not unduly adverse and that the occupation of the area of coastal permit CRC160457 will only add slightly to the cumulative effect.

94 Around 2,870 ha of authorised aquaculture activities in FMA3 have previously been assessed for their cumulative effect on fishing. To date, the highest cumulative effect on any individual fish stock (with more than 1000kg of average annual catch) affected by coastal permit CRC160457 is around 0.2% and not undue.

95 As noted, less than 100 kg of average annual catch is likely to be affected by the aquaculture activities proposed in the area of coastal permit CRC160457. I consider this negligible increase would not cause the new level of cumulative effect on any fishery to become undue.

Conclusion on effects on commercial fishing

96 I am satisfied the aquaculture activities proposed within the areas of coastal permit CRC160457 will not have an undue adverse effect on commercial fishing because:

- no information suggests the coastal permit area is especially important for commercial fishing;
- the proposed aquaculture activities will exclude only a small amount of commercial fishing;
- there are other areas available for commercial fishing within Squally Bay, SA020 and the relevant QMAs or FMA3;
- occupation of the coastal permit area will not increase the cost of commercial fishing;
- the effect on commercial fishing catch will be small; and
- the additional adverse effect on commercial fishing for any fish stock is only small and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

Aquaculture decision

97 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area CRC160457 will not have an undue adverse effect on:

- a) recreational fishing, and
- b) customary fishing, and
- c) commercial fishing.

98 Accordingly, my decision is a determination for coastal permit CRC160457 with regard to:

- a) recreational fishing, and
- b) customary fishing, and
- c) commercial fishing.

99 The area of the determination on recreational, customary and commercial fishing is 17.46 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1599407.39	5169152.91
2	1600016.74	5168808.38
3	1599284.35	5168935.29
4	1599893.69	5168590.76

100 The reasons for my decision are set out in the conclusions for recreational, customary and commercial fishing in this report.



David Scranney
Manager Customary Fisheries and Spatial Allocations
Ministry for Primary Industries

Dated this 25nd July 2016

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